



ITW

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Osamu MITOMI et al.

Group Art Unit: 3765

Application No.: 10/628,472

Examiner: J. Rahll

Filed: July 29, 2003

Docket No.: 116723

For: OPTICAL WAVEGUIDE DEVICES AND TRAVELING WAVE TYPE OPTICAL
MODULATORS

CONFIRMATION OF TELEPHONE INTERVIEW

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicants gratefully acknowledge the indication that claims 1-12 are allowed in the Interview Summary, Notice of Allowability and Examiner's Amendment faxed to the Applicants' representative on March 16, 2005. Accordingly, Applicants submit this Confirmation of Telephone Interview as a complete response to the December 17, 2004 Office Action.

During the Telephone Interview with Examiner Rahll on March 16, 2005, Applicants authorized Examiner Rahll to enter the proposed claim amendments to claims 1, 6 and 10 submitted to Examiner Rahll by facsimile (copy attached), to place this application in condition for allowance.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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JAO:ERM

Date: March 17, 2005

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APPENDIX A

PROPOSED AMENDMENT

1. (Currently Amended) An optical waveguide device comprising a substrate and a supporting body for supporting said substrate, said substrate having a main body made of an electrooptic material ~~and having one main face and the other an other main faces~~, an optical waveguide and an electrode provided on the side of said one main face of said main body;

wherein said supporting body is joined with said main body on the side of the other main face, said electrode comprises a feedthrough portion, and said device further comprises a low dielectric portion provided under said feedthrough portion and between the other main face of said main body and said supporting body; and

wherein said main body has a thickness of 100 micrometers or less in a region of said optical waveguide.

2. (Original) The device of claim 1, wherein at least a part of said low dielectric portion is composed of a material having a dielectric constant lower than that of said electrooptic material.

3. (Original) The device of claim 1, wherein a part of the other main face under said optical waveguide faces a space or a solid material of a low dielectric constant.

4. (Original) The device of claim 1, wherein said low dielectric portion comprises a joining layer joining said supporting body and the other main face of said main body.

5. (Original) The device of claim 4, wherein said joining layer has a thickness of 5 micrometer or larger.

6. (Currently Amended) An optical waveguide device comprising a substrate and a supporting body for supporting said substrate, said substrate having a main body further comprising an electrooptic material having one main face and an other main face, an optical waveguide and an electrode provided on the side of said one main face of said main body;

wherein said supporting body is joined with said main body on the side of the other main face, said electrode comprises a feedthrough portion, and said device further comprises a low dielectric portion provided under said feedthrough portion and between the other main face of said main body and said supporting body; and

The device of claim 1, wherein said low dielectric portion comprises a resin sheet between said supporting body and the other main face of said main body.

7. (Original) The device of claim 6, wherein said resin sheet has a thickness of 5 micrometer or more.

8. (Original) The device of claim 7, wherein said main body has a thickness of 100 micrometer or more in a region of said optical waveguide.

9. (Original) The device of claim 1, wherein a recess is formed on the side of the other main face of said main body.

10. (Currently Amended) An optical waveguide device comprising a substrate and a supporting body for supporting said substrate, said substrate having a main body further comprising an electrooptic material having one main face and an other main face, an optical waveguide and an electrode provided on the side of said one main face of said main body; wherein said supporting body is joined with said main body on the side of the other main face, said electrode comprises a feedthrough portion, and said device further comprises a low dielectric portion provided under said feedthrough portion and between the other main face of said main body and said supporting body;
wherein a recess is formed on the side of the other main face of said main body; and

The device of claim 9, wherein said main body comprises a first thinner portion facing said recess and a second thinner portion facing said recess and having a thickness smaller than that of said first thinner portion, and said optical waveguide is provided in said first thinner portion.

11. (Original) The device of claim 1, further comprising a conductive layer on the surface of said supporting body at least under said feedthrough portion.

12. (Original) A traveling waveguide type optical modulator comprising the device of claim 1, wherein said electrode applies a voltage for modulating light propagating through said optical waveguide.